

Source Water Protection Planning

*Proactive Collaboration for the Protection of
Community Water Resources*

Andrew Madison
Source Water Protection Specialist
Granite State Rural Water Association
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Overview

- GSRWA Background
- USDA Source Water Program Overview
- How
- Success Stories



Who Are We?

- 501(c)6 Non Profit
- State affiliate of National Rural Water Association
- Nation's largest public utility association
- Assisting water systems across NH



Membership and Staff

- 434 Members
- Drinking water, wastewater, industry
- 7 Staff members
 - Circuit Riders
 - Water System Specialists
 - Training Specialists
 - Source Water Specialist
- Board of Directors
 - 5 Water System Operators/Managers



What Do We Do?

- Training
 - Operator Field Day (Sept 15, 2015)
 - Training Credit Classes Offered Around the State
- On-Site Technical Assistance
 - Leak Detection
 - Line Location
 - Valve Maintenance
 - Management GuidanceJust to Name a Few!
- Source Water Protection Planning
- Legislative Representation



Source Water Program

- Funding from USDA Farm Service Agency
- Provided at no direct cost to Community Systems
- Creation and implementation of a Source Protection Plan
- Funding provided for three plans per fiscal year



What is Source Water Planning?

- A collaborative approach to managing water resources
- A synthesis of existing data and management practices
- An opportunity to re-assure consumers
- An invitation for cooperation and mutual benefit
- An opportunity for scientists, conservationists, system operators, municipal officials and the general public to collaborate.



Source Water Planning Goals

- Protect public drinking water sources
- Increase public understanding and awareness
- Identify threats
- Develop and implement management practices
- Promote collaborative resource management
- Build capacity for local action



Source Water Planning Process

1. Initial Outreach
2. Public Workshop
3. Form Advisory Committee
4. Inventory potential sources of contamination
5. Develop Recommendations
6. Publicize the Results
7. Adopt & Implement Plan



Initial Outreach- Where We Work

- Communication with field staff, NH DES, municipalities
- Input from system operators/owners
- Interest from local officials
- Identify major issues
- Determine whether SW program is a right fit for site needs.



Public Workshop

- Town officials, system operators, interested citizens
- Regional planning commissions
- State/Federal agencies
- Give overview of water system and source
- Describe source protection area
- Seek input on WQ concerns
- Goal: Identify Stakeholders



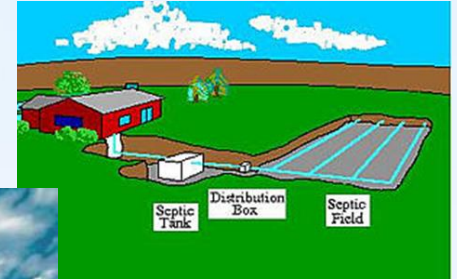
Create a Source Water Committee

- Town Planner/Planning Committee
- System Operator
- Select Board
- Conservation Committee
- Zoning Board
- Local Residents
- Local Business Owners
- Land Owners



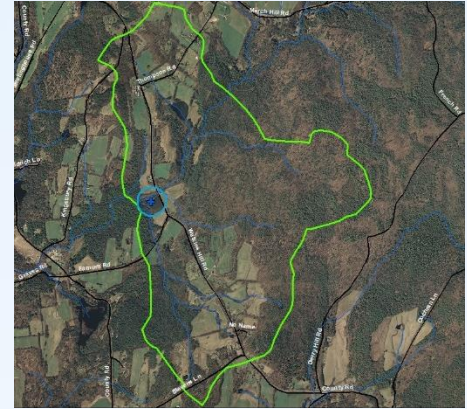
Potential Contaminants

- Activities that may impact water supply
- AST/UST
- Septic systems
- Urban land use
- Agriculture
- Impervious surfaces
- Industrial land uses
- Transportation corridors



Locate Potential Contaminants

- Communication with stakeholders
- Windshield surveys
- GIS Data from state agencies
- Municipal records
- Identifying potential contaminants within WHPA



Assessing Risks

- Proximity to well or intake
- Contaminants present
- Site history/status
- Underlying geology
- Input from Stakeholders



Managing Risks

- Specific actions for specific problems
- Developed by SW Committee
- Proposed to Municipality
- Practical
- Feasible
- Supportable



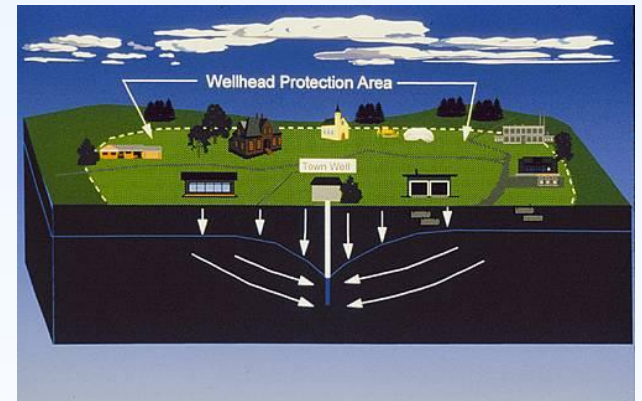
Example Actions

- Education and outreach
- Zoning ordinances
- Conservation easements
- Land acquisition
- Agricultural/Industrial BMP's
- Equipment improvements
- Monitoring
- Security improvements



Implementation- Putting the Plan Into Action

- Build public support
- Seek support from land owners
- Present findings to municipal boards
- Find funding



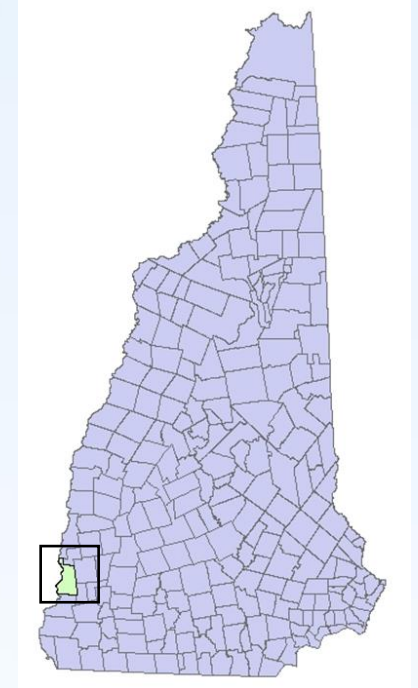
Maintaining Momentum

- Keep the conservation going!
- An SWP is the first step
- SW Committee should meet once per year
- Update the plan every three years
- Maintain public interest



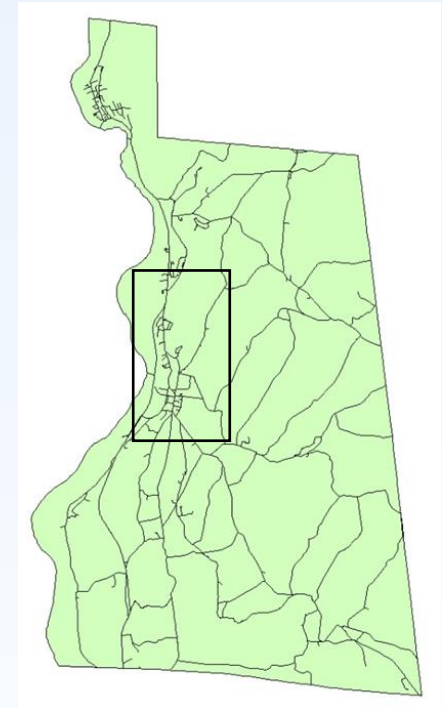
Walpole, NH

- 3500 Individuals
- Two separate communities:
 - Walpole Village
 - North Walpole
- Three community water systems
- Three transient/non-transient systems



Walpole Village

- 975 Individuals
- Median income: \$59,000
- Agricultural
- Commercial/Industrial
- Walpole Water Dept.



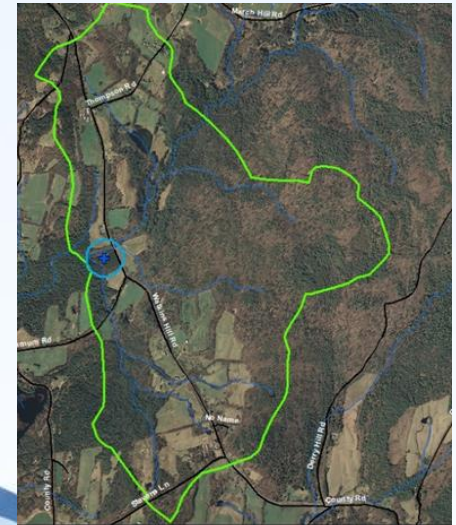
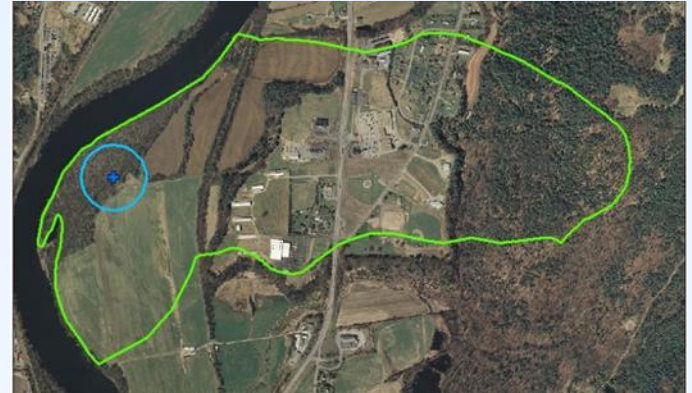
Walpole Village Municipal Water System

- 975 Individuals/400 Connections
- Domestic water and fire protection
- 196,000 gallons/day average
- Two wells: Watkins Hill and River Well
- Owned by the Town of Walpole
- Operated by local contractor



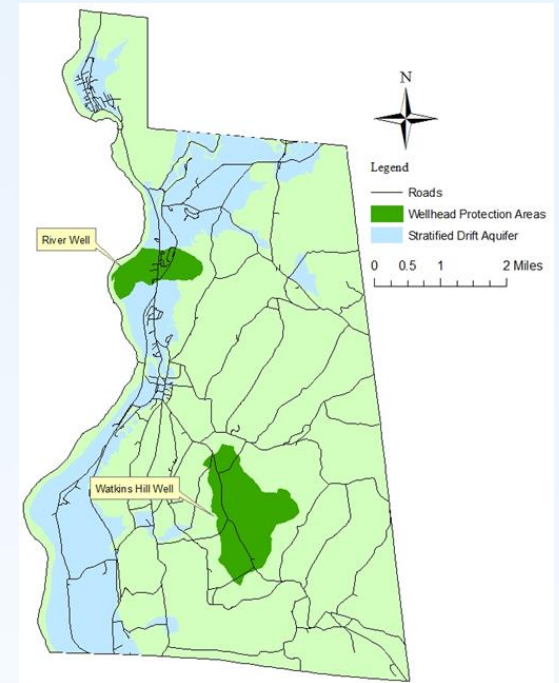
Walpole Drinking Water Sources

- Two gravel-packed wells
- Watkins Hill – Primary
- River Well – Backup
- Agriculture/Residential
- Some Industrial



Drinking Water Protection in Walpole

- 2003 Source Protection Committee and Plan
- 2004 Town Well Source Protection Ordinance.
- 2008: Ordinance Updated
- 2014: Updated Source Protection Plan and Ordinance.



2014 SWP Committee

- Committee reconvened 2013
- Diverse stakeholder group
- Met monthly
- Discussed groundwater concerns
 - Current land uses
 - Future land uses
- Develop management recommendations



Results

- Identified new concerns
 - Potential development
 - Existing industry
 - Agriculture
- Recommended actions
 - Revise ordinance
 - Education & outreach
 - Zoning mapping
 - Protections for conservation/agricultural lands



Revising The Ordinance

- Updated 2004 ordinance
- Sought input from local/state agencies
- Reviewed other SW ordinances
- NH DES Model Groundwater Ordinance
- Identified gaps and redundancies



2014 Source Water Protection Ordinance

- Created a zoning overlay district
- Prohibited, conditional uses
- Clarified boundaries
- Performance standards for existing uses
- Existing non-conforming uses
- Appeals



Land Use Changes

Prohibited

- AST's > 660 gal.
- Bulk Deicing Storage
- Hazardous Waste Storage/Disposal
- Solid Waste Disposal
- Automotive Service/Repair
- Gravel Mining
- Any UST's

Conditional

- Must be approved by Planning Board
- SPCC Plans Approved by Fire Dept.
- BMP's for Ag.
- Cover Hazardous Waste & Impervious Surfaces



Building Support

- Presented to town boards
- Approved by Planning Commission at a public hearing
- Public Outreach Campaign: Spring 2015
- Visible support from Ag. community
- 2014 NH Drinking Water Taste Test Winner



Results

- Approved by 90% of voters on 3/11/15
- No major opposition from business or agricultural community
- Source Protection Plan Adopted by Town
- Protection for agricultural lands
- Increased Confidence in Town's Water Supply



Conclusions

- Inclusive process fostered good-will and built support
- Business leaders, farmers, and land owners should continue to be involved in source protection
- Protecting farmland can be a common cause



Take Home Lessons

- Diverse stakeholder groups can yield broad support
- Drinking water can be uniting
- Invite and engage property owners
- Seek support from agricultural and business community
- Public outreach is key



Acknowledgements

Town of Walpole

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GSRWA Staff

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Questions?

Thank you!

Andrew Madison

amadison@granitestatewater.org

603-313-2889

